BY ORDER OF THE SUPERINTENDENT *AF INSTRUCTION 11-202V3*

HQ UNITED STATES AIR FORCE ACADEMY
Supplement 1

10 APRIL 2001

Flying Operations

GENERAL FLIGHT RULES

NOTICE: This publication is available digitally on the AFDPO/PP WWW site at: **http://afpubs.hq.af.mil.**

OPR: 34 OG/OGV (Maj Charles A. Shumaker) Certified by: 34 TRW/CC (Col Karl R. von Kessel)
Supersedes AFI 11-202 Vol 3/USAFA Sup 1, 2 June 1999 Pages: 9
Distribution: F

AFI 11-202 Volume 3, 1 June 1998, is supplemented as follows: This instruction, as well as the lead AFI applies to all USAF Academy MDS and Non-MDS designated aircraft. Submit recommendations for improvement to this supplement through Stan/Eval channels to 34 OG/OGV using AF Form 847, **Recommendation for Change of Publication.** An "|" indicates revisions from the previous edition.

1.3.1.1. For USAFA, the Commander, 34th Training Wing (34 TRW/CC) is the MAJCOM/DO equivalent.

1.3.2. Coordinate all requests for waivers through Stan/Eval, 34th Operations Group (34 OG/OGV).

2.1.1. Pilots of USAFA aircraft are not required to reference the ASRR. However, the ASRR contains information pertaining to IFR operations as well as obstacle data that may be useful in flight planning. Pilots are encouraged to reference the ASRR when planning flights to unfamiliar airfields. The report is available online at **http://www.amc.af.mil/do/doa/doas-asrr.htm**.

2.1.2. A current FAA Airport/Facility Directory covering the geographic region of the flight is considered an appropriate FLIP enroute supplement for VFR flight. The Flight Information Handbook is required for IFR flights. Pilots may not use the GPS as the primary navigation reference if that GPS unit's database has expired. (This does not prohibit using a GPS with an expired database as a reference tool during VFR flight.) Due to cockpit constraints and the limited scope of their mission, USAFA sailplanes need not carry a FLIP enroute supplement, Airport Facilities Directory (AFD), or Flight Information Handbook. Sailplanes will contain a current In Flight Guide or a Sectional or Terminal Area Chart, as appropriate.

2.2.4. USAFA aircraft may use the output from FliteMap/FliteStar software or FAA Direct User Access Terminal (DUATS) flight planning algorithms. The Pilot in Command will crosscheck the accuracy of navigational and performance data versus FLIP, the aircraft flight manual or performance supplements.

2.3. When operating from nonmilitary fields, crews will obtain weather information from FAA approved weather sources (Flight Service Station or DUATS) or via telephone from the nearest military weather facility.

2.4.1. USAFA aircraft are not required to use printed passenger information guides due to the limited space for such aids and the possibility of FOD or cockpit disorganization.

2.5.1. USAFA crewmembers may operate portable GPS units (PGUs) in accordance with paragraph 5.8.3.3. of the basic instruction. These units are considered nontransmitting devices, and the appropriate sections of paragraph 2.5.1. of the basic instruction also apply to their use.

2.5.4. Do not wear wigs, hairpieces, earrings, ornaments, scarves or rings while performing aircrew or flightline duties.

2.6.1. USAFA motorgliders and sailplanes are exempt from the requirement to possess attitude-indicating instrumentation when operating in day VMC conditions. The TG-4 sailplane is exempt from the requirement for operable instrumentation in the rear cockpit that the pilot-in-command occupies. (AFFSA USAFA Waiver 99010 and AFFSA USAFA Waiver 99011)

3.1.2. The local flight clearance and daily flight order or electronic logging system may be used in lieu of other approved flight plan forms when a supervisor of flying (SOF) or operations supervisor provides flight following and:

- A flight or series of flights is conducted entirely within the designated local area, or
- A flight or series of flights begins and ends at a deployed training location.

3.2. Passengers will be listed on the local flight clearance and daily flight order, in an electronic logging system, or the appropriate section of an approved flight plan form prior to takeoff. Exception: Passenger information may be given to the SOF or operations supervisor in lieu of the above methods. (Example: prior to sailplane orientation sorties.) If electronic or paper records of flight information are kept on file, units are responsible for complying with applicable provisions of AFI 37-138 and AFMAN 37-139 for maintaining and disposing of records.

4.1.1. For the purposes of conducting a flight under IFR, a current instrument rating means:

- The PIC has a current AF Form 8, **Certificate of Aircrew Qualification**, instrument evaluation, on file.
- The PIC maintains instrument approach and landing currency in accordance with MDS-Specific regulations.

4.3.1. USAFA aircraft may file to and land at CONUS civil (P) airports. These flights must be in support of unit mission requirements and must be properly planned to avoid the risks associated with using non-military facilities.

5.6.2. Due to radio limitations, motorgliders and all sailplanes are exempt from the requirement to continuously monitor emergency frequencies. Other aircraft are exempt from this requirement when flying in the designated local flying area or at deployed training or competition locations, in which cases pilots may monitor supervisory frequency in lieu of emergency frequencies. (AFFSA USAFA Waiver AFI 11-202 Vol 3/20002)

5.8.3.2. The UV-18 may conduct IFR operations using the GPS as the primary navigation reference, but the T-41D may not. (The GPS units installed in the UV-18s and T-41s are both IFR approved systems. However, the T-41 *aircraft* have not yet accomplished FAA-required certification for GPS operations under IFR.)

5.8.3.3. Personal or unit-provided PGUs may be used in any USAFA aircraft in accordance with the restrictions outlined in paragraph 5.8.3.3. of the basic instruction. Aircrews will not permit use of such devices to detract from other aircrew duties, such as clearing. Any PGU used in USAFA aircraft must first

be approved by the appropriate flying squadronís operations officer. This approval satisfies the requirements of bullets 4 and 7 in paragraph 5.8.3.3. of the basic instruction.

5.8.3.4. GPS overlay approaches may be flown in day VMC conditions for training use only.

5.9.1.1. When ATC control of aircraft is limited to defined movement areas as defined in FLIP General Planning, USAFA aircraft may reposition when remaining outside those areas without ATC clearance. Pilots will consult ATC bulletins, local operations regulations, and MDS-specific local procedures for guidance.

5.10.3. Rated pilots may conduct operations to 500 ft AGL in support of USAFA flyover events. (AFFSA USAFA Waiver Vol 3/99001)

5.12. Altimeters used in all sailplanes may be set to field elevation prior to takeoff.

5.13. Simulated Instrument Flight is flight conducted in VMC when the pilot chooses to use the flight instruments as the primary means of maintaining aircraft attitude. Pilots of USAFA aircraft will not accomplish simulated instrument flight under VFR without a safety observer as defined in paragraph **5.13.1.**

5.13.1. To be considered qualified to serve as a safety observer, an individual must occupy a seat with functioning flight controls and either:

- Have a current USAF Form 8 qualification flight evaluation on file for a USAFA powered aircraft and maintain MDS-specified landing currency.
- Be an FAA inspector or designated pilot examiner.
- Possess an FAA pilot certificate for civilian-equivalent category and class of aircraft and maintain landing currency under FAR 61.57.a.1.

Exceptions: A cadet may not serve as safety observer for another cadet. Also, a rated pilot or DoD civilian assigned USAFA flying duties may serve as safety observer during formal syllabus training sorties.

5.13.2.2. A safety observer as defined in paragraph **5.13.1.** is required for all practice instrument approaches flown under VFR. Refer to paragraph **8.1.2.1.** for restrictions.

5.13.3. Vision restricting devices may be used on board USAFA aircraft. A safety observer as defined in paragraph **5.13.1.** must be on board. The following takeoff and landing restrictions apply:

5.13.3.1. Pilots of USAFA aircraft may use vision restricting devices for simulated instrument takeoffs only when a USAFA instructor pilot (IP) who is current and qualified in that aircraft, or an FAA inspector or designated pilot examiner, occupies a pilot seat. Vision restricting devices may not be used for landings; upon reaching a minimum of 200íAGL, either discontinue use of the vision restricting device or execute climbout or missed approach.

5.14.1. Simulated EPs will not be accomplished at night, in IMC, or with passengers on board. For the purposes of this paragraph, a passenger is a person who is not qualified in that aircraft and is not enrolled in a formal syllabus that culminates in qualification or pilot privilege in that aircraft. (i.e., an AM-251 student is *not* a passenger when flying in a TG-4.) Exceptions:

- A motorglider flying with its engine shut down per paragraph **5.14.2.2.** is not considered to be flying a simulated forced landing (SFL). The intent here is to permit field-selection practice for cross-country soaring training and glider IP continuation training.

- Simulated EPs may be conducted in T-41D aircraft with a C-150 trainee or qualified C-150 pilot on board, and vice versa. The intent is to make use of the similarity between these two aircraft to enhance training opportunities.
- Flying unit commanders, operations officers, and their supervisors are not considered passengers when flying in any of their unitsí aircraft.

5.14.2.1. Pilots will not practice emergency takeoffs, approaches, or landings unless an IP or flight examiner is in a pilotís seat with immediate access to aircraft controls. (A motorglider flying with its engine shut down per paragraph **5.14.2.2.** is not considered to be practicing an emergency approach and landing.) Exceptions:

- Motorglider, T-41 and C-150 mission pilots (MP) may practice simulated forced landings (SFL) in the USAFA traffic pattern without an IP on board.
- Motorglider MPs may perform no-spoiler patterns and landings at USAFA, Colorado Springs Municipal Airport, and Butts Army Air Field (AAF) without an IP on board.

5.14.2.2. When mission requirements dictate, pilots of motorgliders specifically designed to fly with the engine shut down in flight (such as the TG-11 or Ximango) may do so. During a Functional Check Flight (FCF), a UV-18 engine may be shut down. Practice engine shutdowns are not authorized in any other USAFA aircraft.

5.14.2.3. T-41s, Cessna 150s, and motorgliders may practice SFLs in accordance with flight manual procedures and with the following restrictions:

- Area SFLs (SFLs flown outside a runway traffic pattern) will be flown not lower than 200 ft AGL in the designated local training areas.
- Traffic pattern SFLs may only be flown at military airfields, or at a civil airfield where a letter of agreement is in effect.
- Except at Aardvark and Bullseye auxiliary fields, Tower, RSU or SOF personnel with transmit capability must be in a position to monitor the approach and landing. (The intent is to avoid nonstandard pattern entries at uncontrolled fields. A gliding pattern flown by a motorglider with its engine shut down per paragraph **5.14.2.2.** is not considered an SFL for the purposes of this paragraph.)
- SFLs may be flown no lower than 50 ft AGL at Aardvark Auxiliary airfield.

5.15.3. Motorglider, C-150, and T-41D MPs may perform touch and go landings without an IP on board. An IP must be at the controls for UV-18 touch and go landings.

5.16.1. USAFA Flying Team message drops will comply with National Intercollegiate Flying Association (NIFA) competition regulations. UV-18B parachute and Wind Drift Indicator drops will comply with MDS-specific AFIs and local procedures.

5.17.3.2. USAFA sailplanes and motorgliders not equipped with anticollision or strobe lights are exempt from the requirement to operate such lights.

5.17.4.1. USAFA sailplanes and motorgliders are exempt from the requirement to have a landing light. All other aircraft must have a functioning landing light in order to depart airfields where USAFA contract maintenance support is available. The mission may be continued between the hours of official sunrise and sunset to an airfield where contract maintenance support is available. ***NOTE:*** The T-41 taxi light may be considered a landing light for the purposes of this paragraph.

5.18. In addition to the areas listed in paragraph **5.18.**, motorglider departure training may also be conducted in the local motorglider training areas beginning immediately north of A-260 if A-260 is unavailable. (The intent is for motorgliders to use A-260 as much as possible. ***NOTE:*** The southern half of area Eaglet is within A-260.) Otherwise, aerobatics will be conducted only in the areas listed in paragraph **5.18.** Exception: If none of these areas are available, glider aerobatics may be conducted during training and competition deployments only after USAFA personnel have ensured:

- Prior coordination with the applicable ATC facility has been accomplished and that facility is aware of the times and location of the operation.
- A NOTAM is in effect daily, notifying pilots of the times, activities, and area involved.
- Fixed base operator (FBO) in the vicinity of the activities has received informational flyers or literature advising pilots of the aerobatic activity. (AFFSA USAFA Waiver AFI 11-202 Vol 3/99005 and AFFSA USAFA Waiver AFI 11-202 Vol 3/99002)

5.19. In addition to requirements of AFI 11-209, guidance for Academy flyovers is outlined in 34 OG local directives, the FAA Certificate of Waiver, and AFFSA USAFA Waiver AFI 11-202 Vol 3/99001.

5.22.2. AIREPs are not applicable to USAFA aircraft operations unless requested by the weather station at the departure airfield.

5.23. If lightning is reported at or within 5nm, flightline operations will cease. Approval for flight operations when a thunderstorm or lightning is within 10nm, but not at or within 5nm, may be granted by squadron director of operations (DO) or designated representative. This approval will only be granted when such weather is not expected to move towards the airfield and is not producing local effects.

5.23.2. Without the approval discussed in paragraph **5.23.**, do not take off from or fly an approach or landing at a field if a thunderstorm or lightning is within 10nm of the field or the intended flight path.

5.23.3. Remain at least 10nm away from thunderstorms and lightning when enroute unless the approval listed in paragraph **5.23.** has been received.

6.2. Personal and Survival Equipment requirements for USAFA aircraft are as follows:

- Parachutes must be worn for missions planned to include aerobatic flight. Aerobatic flight is defined in the “terms” section of Attachment 1 of the basic instruction.
- Seat belts and shoulder harnesses (if shoulder harnesses are installed) must be worn by all occupants of USAFA aircraft for taxi, takeoff, landing, and other critical phases of flight. These restraints will normally be worn at all times, but they may be momentarily removed during noncritical phases of flight to facilitate movement within the aircraft.
- For sailplane operations, flight uniforms need not meet the specifications of AFI 11-301, *Aircrew Life Support Program*, Attachment 3. Required uniforms will be specified in local or MDS-specific instructions.
- For powered aircraft, the aircrew clothing requirements of AFI 11-301 apply. Exception: Motorglider pilots need not wear flight gloves when operating with the engine shut down per the conditions in paragraph **5.14.2.2.**
- A survival kit will be carried on each flight by USAFA aircraft. Enhanced kits are recommended but not required for flights in mountainous areas due to the weight limitations in aircraft such as the TG-7 and C-150. The squadron commander will specify which survival equipment is required for flight.

- For overwater-cruise flight beyond power-off gliding distance from land, the aircraft commander will ensure each occupant wears or carries a life preserver. If such flight is planned to exceed 15 minutes duration, a life raft of rated capacity to accommodate all occupants of the airplane must be on board. Life preservers and life rafts must be military-issue or FAA-approved. These requirements are not applicable to the takeoff, departure, approach or landing phases of flight.

6.3.1. Spectacles worn by cadets (USAFA or ROTC) participating in an airmanship program as a student or upgrader (including any cadet participating in the Tactical Aviation (TACAV) program) need not meet the specifications of AFI 11-202V3 paragraph 6.3.1. Cadets having successfully completed a qualification syllabus to serve as pilot in command of USAFA aircraft (not AM-251 solo or Project Solo students) will fully comply with AFI 11-202V3 paragraph 6.3.1. (AFFSA USAFA Waiver Vol 3/20011, expiration 31 Mar 2004)

6.3.3. USAFA aircrew members, conducting local-area sorties, need not comply with AFI 11-202V3 paragraph 6.3.3 requiring crewmembers to carry a spare set of clear prescription spectacles when piloting a USAFA glider. (AFFSA USAFA Waiver Vol 3/20011, expiration 31 Mar 2004)

6.4. USAF Academy pilots may fly without supplemental oxygen above 10,000í MSL in the local training area or when necessary to maintain altitude clearance during flight over mountainous terrain as designated in the Aeronautical Information Manual. The following restrictions apply:

- The operation must be mission essential.
- USAFA pilots flying in command under this provision must attend physiological training, including altitude chamber rides.
- Pilots will spend a maximum of 30 continuous minutes between 12,500 and 14,000 feet MSL.
- Supplemental oxygen must be used above 14,000í MSL.
- Should any person on the aircraft experience hypoxia symptoms, the PIC will immediately descend below 10,000í MSL, land at a suitable location, and obtain medical assistance from a flight surgeon or civilian designated aviation medical examiner. The affected person shall not continue the flight unless authorized by either medical authority.
- During sorties in which spins or aerobatics are performed, time spent above 10,000í MSL is limited to 30 minutes. This time begins upon commencing the spins or aerobatics, it does not include time spent on tow (for gliders), and subsequent descents below 10,000í MSL reset this 30 minute clock. (AFFSA USAFA Waiver Vol 3/99006 and 11 Dec 00 Addendum)

7.2.1. Pilots of USAFA aircraft may file a VFR flight plan when forecast weather is below 1500/3 only in the following instances:

- For pattern-only sorties or for pattern tows (gliders), as long as existing ceiling and visibility at the airfield are 1500/3 or better.
- USAFA Flying Team pilots may file a C-150 or T-41D VFR flight plan for a pattern-only sortie during actual NIFA competition (not practice sorties) when actual weather is 1300/3 or better.

NOTE: For VFR point-to-point flight plans, the departure field forecast is not limiting, although enroute and destination weather forecasts must meet the requirements of paragraph **7.2.1.** of the basic instruction. The intent here is to permit the filing of a VFR point-to-point flight plan into VFR conditions, even though the forecast at the departure field is less than VFR. (AFFSA USAFA Waiver AFI 11-202 Vol 3/99007 and AFFSA USAFA Waiver Vol 3/99003)

7.3.1. When flying under VFR, always comply with table 7.1. of basic instruction. The lowest permissible actual weather when flying under VFR is always 1500/3. (Exception: USAFA Flying Team C-150 and T-41D aircraft may fly pattern-only sorties during actual NIFA competition; i.e., not practice sorties when the actual weather is at least 1300/3. The minimum permissible pattern altitude is 800'AGL. This exception is provided by AFFSA USAFA Waiver Vol 3/99003). For the purposes of flying a VFR point-to-point flight, the departure field forecast is not limiting, provided the actual and forecast enroute weather is at least 1500/3 for the duration of the flight, and the destination forecast is at least 1500/3 for arrival time plus or minus 1 hour. Flying glider sorties and powered-flight pattern-only sorties when the *forecast* at the airfield is below 1500/3 is acceptable with the following restrictions:

- Local directives will specify maximum numbers of aircraft in the USAFA pattern in order to minimize traffic conflicts and ensure recovery of aircraft should weather begin to deteriorate.
- Local sailplane sorties will be limited to 10 minutes. (AFFSA Waiver AFI 11-202 Vol 3/99007)

8.1.2. USAFA sailplanes may operate between FL 180 and FL 250 on a VFR flight plan only while in the confines of ATC assigned wave-flying airspace for which a letter of agreement or authorization with the appropriate ARTCC exists. Additionally, USAFA aircraft may fly on federal airways at appropriate VFR hemispheric or ATC-assigned altitudes. (AFFSA USAFA Waiver AFI 11-202 Vol 3/99008 and AFFSA USAFA Waiver AFI 11-202 Vol 3/99009)

8.1.2.1. Practice instrument approaches under VFR are authorized in USAFA aircraft. A safety observer as defined in paragraph **5.13.1.** must be on board. If terminal radar service is not available or is denied due to ATC saturation, VFR practice instrument approaches may be conducted with the following restrictions:

- The approach may not be performed at night.
- The approach must be flown to an airfield listed in **Table 8.1. (Added)**.
- Existing ceiling during the approach must be a minimum of 1500í AGL. (Approaches to airfields that are annotated with an asterisk in **Table 8.1. (Added)** require a minimum weather of 3000/3 due to the proximity of steeply rising terrain.)
- Cloud clearance and visibility requirements in Table 7.1. of the basic instruction apply.
- A maximum of 3 USAFA aircraft may conduct approaches simultaneously to the same airport.
- Radio contact on a common frequency will be maintained between USAFA aircraft accomplishing approaches to the same airport.
- Pilots will monitor appropriate ATC frequency as well as tower or Common Traffic Advisory Frequency (CTAF), as necessary, and will provide position reports/intentions on the appropriate frequencies.

Table 8.1. (Added) Airfields Approved for Practice Instrument Approaches without Terminal Radar Service

*Santa Fe, NM	*Gunnison, CO
Garden City, KS	*Taos, NM
Kit Carson, CO	Trinidad, CO
*Montrose, CO	La Junta, CO
*Raton, NM	Lamar, CO
Sidney, NE	*Durango, CO
Goodland, KS	*Alamosa, CO

(AFFSA USAFA Waiver Vol 3/20001)

8.6. UV-18 takeoff minimums require that existing weather must be at or above compatible landing minimums. For initial upgrade training, an IP will perform the takeoff if the weather is less than 300/1.

8.7.1.1. Because USAFA does not maintain a TERPS office, only DoD or NOAA FLIP procedures are permitted to be used under IFR.

8.13.1.1. UV-18 IPs or flight examiner (FE) may fly to published approach minimums (excluding Cat II and Cat III approaches). All other UV-18 crewmembers are restricted to 200 ft ceiling and ½ mile visibility (2400 RVR) or published minimums, whichever is higher.

8.13.2. USAFA aircraft are authorized to continue to the missed approach point and land if the aircraft is in a position to make a safe landing and the runway environment is in sight.

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

Abbreviations and Acronyms

AFD—Airport Facilities Directory

CTAF—Common Traffic Advisory Frequency

EP—Emergency Procedures

FE—Flight Examiner

FOB—Fixed Base Operator

IP—Instructor Pilot

SOF—Supervisor of Flying

MARK A. WELSH III, Brig Gen, USAF
Commander, 34th Training Wing